

Title: Method for the selection of biomolecules from biomolecule variant libraries

Abstract: The invention relates to a method from the selection of biomolecules from variant libraries, in particular of biocatalytically active biomolecules, comprising the steps: a) production of a variant library, b) division of the library into a number of compartments, which is smaller than the total number of variants in the variant library by a factor of at least 10, c) production and testing of the biomolecules in the individual compartments for a particular property, for example, a biocatalytic activity, d) selection of at least one compartment I in which there are biomolecules fulfilling the desired property, e) division of the partial library contained in the selected compartment into further compartments and f) n-fold repetition of the steps c) to e) until each compartment contains only one variant of the gene sequence coding for the biomolecule. In contrast to established methods which comprise mutagenesis and selection steps, said method starts with a large library in which the desired variant is contained from the outset.